## **Cumulative Index 1991**

## Volume 9

Februaru ANGINA PECTORIS, pages 1-191

Mau VALVULAR HEART DISEASE, pages 193-411

August PERIPHERAL VASCULAR DISEASE IN THE ELDERLY.

pages 431-568

November ACUTE CARDIAC CARE, pages 569-784

Note: Page numbers of article titles are in boldface type.

Adenosine, in narrow complex tachycardias, 631, 633-634 α-Adrenergic blockers, for hypertensive patients with angina pectoris, 168

β-Adrenergic blockers, for angina pectoris in the elderly,

effect on asymptomatic myocardial ischemia, 57-58 for hypertensive patients with angina pectoris, 169

for unstable angina pectoris, 91-92 B-Adrenergic receptor antagonists, for stable angina

pectoris, 79-81 adverse effects, 81

mechanism of action, 79 properties and dosages, 80

Age, as factor in abdominal aortic aneurysms, 483 as factor in anginal pain significance, 179-180

as factor in long-term results of aortic valve replacement, 366-367

as factor in mortality following aortic valve replacement,

as factor in percutaneous coronary angioplasty success in angina pectoris, 103-104

as factor in percutaneous mitral balloon valvotomy, 280-281

Amiodarone, in ventricular tachycardia, 610

Aneurysm, abdominal aortic, 483-488, 499 clinical presentation, 483-484

diagnosis, 484-485

incidence, 483 surgery for, 485-487

cardiac considerations, 485-486

procedure, 486-487 renal considerations, 486

features, 587

femoral artery, 489-492

mycotic femoral, 491-492

peripheral, 489-496

popliteal artery, 492-495

pseudoaneurysm versus, 587

ventricular, following acute myocardial infarction, 588-

Angina pectoris, coronary arteriography in, 63-71 definition, 157

in the elderly, 177-187

diagnosis, 177-180

prevalence, 177

prognosis, 180-181

risk factor modifications, 185

treatment, 181-185

hypertension in, diastolic dysfunction and left ventricu-

lar hypertrophy in, 172-173 medical therapy, 167-176

interventional cardiology in, 115-134

endovascular prostheses, 122

lasers, 124-130

removal devices, 115-122

Wall stent, 122-124

issue on, 1-187

myocardial ischemia in, asymptomatic, pathophysiology and clinical implications, 49-61. See also Ischemia, muocardial.

with normal coronary angiograms, 157-166

pathophysiology, prognosis, 27-38

in cardiac catheterization era, 31-34

as determined by noninvasive test variables, 35

in precatheterization era, 28-28

therapeutic impact on, 35–36

percutaneous coronary angioplasty in, 99-113. See also Percutaneous coronary angioplasty, in angina pectoris.

risk stratification in, 39-47

clinical characteristics, 39-40

exercise testing, 40-44

radionuclide angiography, 45-46

thallium-201 imaging, 44-45

stable, circadian rhythms in, 8-9

coronary arteriography in, 64-65 coronary artery bypass surgery for, 135-149

angioplasty versus, 145-147

clinical implications and indications, 148-149

medical therapy following, 147-148

operative procedure, 135-136

operative risk, 136-138

results, 138-145

ischemia in, 6-8

drug treatment in, 516

future developments, 521 Angina pectoris (Continued) mechanisms involving coronary blood flow in, 2-6 historical background, 515 pathophysiologic mechanisms, 516 mechanisms involving myocardial oxygen demand success of, 516-517 technique, 515-516 medical therapy, 72-87 Angiotensin-converting enzyme inhibitors, for B-adrenergic receptor antagonists, 79-81 calcium channel blockers, 81-83 hypertensive patients with angina pectoris, 168 combination, 83-84 Annuloplasty, for tricuspid insufficiency, 403-404 concomitant disease and, 84-85 Antiarrhythmic agents nitrates, 74-79 in paroxysmal supraventricular tachycardia, efficacy of, 635 nonatheromatous, 5-6 pathophysiology, 1-10 in ventricular tachycardia, 610 prognosis, 27-38, 72 Anticoagulants, oral, in pulmonary embolism, 465-466 adverse, indicators of, 34 in pulmonary embolism, 467-468, 469-470 in cardiac catheterization era, 28-31 in venous thromboembolism, 471 Anticoagulation, mechanical prostheses and, 334-335 determination of, 39 as determined by noninvasive test variables, 34-35 in pulmonary embolism, 765-767 by diseased vessels, 29, 30 tissue valves and, 335 in precatheterization era, 27, 28 in unstable angina pectoris, 94 Antimyosin antibody, clinical applications, 738-739 therapeutic impact on, 35 risk stratification in, pathophysiology, 40-42 technical principles of, 734 Antiphospholipid syndrome, 561 unstable, 751-752 Antiplatelet agents, in angioplasty of the peripheral atherosclerotic coronary stenosis in, 12-13 coronary arteriography in, 65-67 arteries, 516 coronary artery bypass surgery for, 149-152 Aorta, abdominal, percutaneous transluminal angioplasty clinical implications and indications, 152 in, 517 operative procedure, 149-150 rupture of, diagnosis and treatment, 683-684 results, 151-152 Aortic dissection, acute, and acute aortic regurgitation, diagnosis and prognosis, 751 surgery for, 343-345 episodic coronary artery obstruction in, 16-21 as cause of acute peripheral arterial occlusion, 505 medical therapy, 89-98 and acute aortic regurgitation, 340 pathophysiology, 11-26, 89-90 surgery for, results, 349-350 percutaneous coronary angioplasty in, 102-103 Doppler echocardiography in, 712 plaque fissure in, 13-16 transesophageal echocardiography of, 698 prognosis, determination of, 39 Aortic insufficiency, acute, medical management, 259-262 risk stratification in, 95-96 chronic, baseline characteristics, 264, 265 exercise testing, 42-43 baseline variables, 258 sestamibi in, 752 medical management, 262-268 thallium-201 imaging in, 751-752 medical therapy for, 255-270 natural history, 257-259 Angiography, in acute aortic regurgitation, 340 coronary, normal, angina pectoris with, 157-166 pathophysiology, 255-257 routine, 744-747 Aortic regurgitant fraction, calculation of, 214-215 in peripheral vascular disease, 426-427 Aortic regurgitation, acute, 339-352 pulmonary, in pulmonary embolism, 764 causes, 339-340 radionuclide, 747 diagnosis, 340 clinical applications, 737-738 Doppler echocardiography in, 722 in risk stratification of angina pectoris patients, 45-46 quantitation of, Doppler echocardiography for, 215 vertebrobasilar, in ischemia of the posterior circulation, rheumatic fever and, 346 treatment, medical, preoperative, 340-341 532 Angioplasty, for angina pectoris, versus coronary artery surgical, 341-346 surgery for, results, 346-350 bypass surgery, 145-147 aortic, 517 aortic valve replacement in, long-term effects, 373-375 balloon, in renovascular hypertension, 545 chronic, 240-245 bypass grafts, 519 Doppler echocardiography in, 197-198 femoropopliteal, 519 sensitivity and specificity of, 199 iliac, 517-518 and mortality following aortic valve replacement, 364 infrapopliteal, 519 quantitation of, Doppler echocardiography for, 206-213 laser, balloon. in coronary artery disease, 128 Aortic root, infections of, surgery for, 341-343 excimer, in coronary artery disease, 128-130 Aortic rupture, following aortic valvuloplasty, 295 spectroscopy-directed, in coronary artery disease, 128 Aortic stenosis, 233-237 laser thermal, in coronary artery disease, 127-128 aortic valve replacement in, 234-235, 289-290 percutaneous coronary, in angina pectoris, 99-113. See long-term effects, 371-373 also Percutaneous coronary angioplasty, in angina aortic valvuloplasty for, 289-299. See also Aortic valvupectoris. loplasty. percutaneous transluminal, of the peripheral arteries, causes, 233 515-522 in the elderly, 235-236 benefits, 517 in infants, surgical approach, 392-393 clinical applications, 517-519 and mortality following aortic valve replacement, 364 complications, 519-521 natural history, 289

and noncardiac surgery, 236-237

symptoms, 233

timing of surgery in, 233-234

Aortic valve, débridement, 359-360

prostheses for, mechanical, 355-356. See also Heart valve prostheses.

Aortic valve disease, natural history, 353-354 surgery for, long-term results, 354-375

Aortic valve dysfunction

and coronary artery disease, 301-307

reoperation for, 307

Aortic valve repair, 359-360

Aortic valve replacement, for aortic regurgitation versus aortic stenosis, 364

in aortic stenosis, 234-235, 289-290

bioprosthetic valves in, 356-357

for chronic aortic regurgitation

clinical and functional effects, 240-242

indications, 243

timing of, 243-245

comparison studies, 360-363

in coronary artery disease, 301-307

following aortic valvuloplasty, 296

homograft, 357-358

and left ventricular function, 371-375

long-term results, 353-380

advanced symptoms, 368-369

age as factor in, 366-367

aortic annulus and, 371

coronary artery disease and, 367-368

endocarditis and, 371

left ventricular dysfunction and, 369-371

patient-related determinants of, 366-371

stenosis versus regurgitation and, 368 mechanical aortic valve prostheses in, 355-356

mortality following, 363-366

pulmonary valve autografts, 358-359

Aortic valves, degenerative disease affecting, 696-698 infectious disease involvement in, 701

Aortic valvuloplasty, 289-299

aortic valve replacement following, results, 296

complications, 293-296 contraindications, 290

effects on left ventricular function, 292

immediate results, 291-292

indications, 297

long-term clinical outcome, 292-293

mechanisms, 290

technique, 290-291

Arrhythmia, following percutaneous mitral balloon valvotomy, 282

Arterial insufficiency, ulcers caused by, 559-562 Arterial occlusion, peripheral, acute, 497-513. See also

Peripheral arterial occlusion, acute.

Arterial vessels, injury to, diagnosis and treatment, 684

Arteries, brachial, examination of, 418, 419

carotid. See Carotid artery.

dorsalis pedis, examination of, 422-424

examination of, 418

facial, examination of, 418

femoral. See Femoral artery.

internal mammary, assessment, 436

occipital, examination of, 418

peripheral, percutaneous transluminal angioplasty of, 515-522

pulsations in, in peripheral vascular disease, 417-423 popliteal, examination of, 422, 423

radial, examination of, 419, 420

ulnar, examination of, 419, 420

obstruction of, in peripheral vascular disease, 420,

421

Arteriocameral fistulae, diagnosis and treatment, 683

Arteriography, coronary, in the anginal syndromes, 63-71

in cornonary artery disease, 63-64

in stable angina pectoris, 64-65 in unstable angina pectoris, 65-67

Arteriosclerosis, description, 413

Arteriosclerosis obliterans, and arterial insufficiency ulcers, 559

Arteritis, extracranial cerebral, 528-529

giant cell, coronary artery involvement by, 549-550

large vessel involvement by, 548-549

temporal, 547-553

clinical manifestations, 548-550

diagnosis, 550-552 epidemiology, 547

mortality in, 550

with normal erythrocyte sedimentation rate, 550

pathology, 547-548

treatment, 552

Aspirin, for unstable angina pectoris, 94

Atherectomy, in coronary artery disease, 115-122

Atheroabrasion, 121

Atheroembolism, 561

Atherosclerosis, 523-524

cholesterol crystals in, 525, 526

coronary. See Coronary atherosclerosis.

description, 413

in peripheral vascular disease, 413

Atrial fibrillation, 624-627

as factor in long-term results of aortic valve replace-

ment, 366

percutaneous mitral balloon valvotomy in, 278

treatment, 637-638

Atrial flutter, 624-627

treatment, 637-638 Atrial septal defect, diagnosis and treatment, 683

Atrioventricular fistula, diagnosis and treatment, 684-685

Automaticity, increased, in ventricular tachycardia, 597

Baker's cyst, ruptured, as cause of leg swelling, 452-453 Balloon dilatation, intra-aortic, for shock in myocardial infarction, 581

Balloon valvuloplasty, iatrogenic damage caused by, 704-

Beta-blockers, in sudden death, 658

Bezold-Jarisch reflex, description, 646

Bioprosthetic valves, in aortic valve replacement, 356-357

Bjork-Shiley prosthesis, 330-331

Blindness, transient monocular

extracranial carotid disease and, 524-526

symptoms, 524-525

Blood flow, coronary, mechanisms involving, 2-6

in peripheral vascular disease, 425

Blood pressure, in peripheral vascular disease, 425 Blunt trauma, and aortic disruption, 700

Brachial artery, examination of, 418, 419

Bradycardia, symptomatic, treatment, 647

Bretylium, in ventricular tachycardia, 610

Buerger's disease, and arterial insufficiency ulcers, 559-

Bypass grafting, combined with aortic valve replacement,

combined with mitral valve replacement, 308-313

Calcium antagonists, for unstable angina pectoris, 92-93

Calcium channel blockers, for angina pectoris in the elderly, 182

for hypertensive patients with angina pectoris, 169-172

for stable angina pectoris, 81-83

adverse effects, 87-88 classification, 87

mechanism of action, 81-82

Captopril, for hypertensive patients with angina pectoris, 168

Cardiac arrest, survivors of, and sudden death, 654

Cardiac care, acute, issue on, 569-772

Cardiac rupture, Doppler echocardiography in, 722

Cardiac tamponade, 665-674

causes, 665, 666

central venous pressure in, 667

clinical manifestations, 666-669

diagnosis, 669-672

Doppler echocardiography in, 715-718

Doppler flow studies in, 669-671

echocardiography in, 669-671

hemodynamic findings in, 671-672

pathophysiology, 665-666

pericardiocentesis in, 672

pulsus paradoxus in, 667-669

subacute effusive-constrictive pericarditis in, 672

subxiphoid pericardiotomy in, 673

treatment, 672-673

Cardiomyopathy, hypertrophic, sudden death in, 656-657 prevention, 660

idiopathic dilated, sudden death in, 657

prevention, 660

in ventricular tachycardia, 600-601

Cardioplegia, as factor in long-term results of aortic valve replacement, 366

Cardioversion, in atrial fibrillation, 637

in narrow complex tachycardias, 632

Carotid artery, diagnosis, 429–442

evaluation, 418

diagnostic, 429

noninvasive, 433-435

techniques, 431-433

timing of, 429-431

examination of, 419

Carotid artery disease, asymptomatic, management, 527-528

extracranial, 523-530

Carotid dissection, manifestations, 528

Carotid sinus hypersensitivity, treatment, 647

Catecholamines, for pump failure following myocardial infarction, 578

Catheterization, in acute aortic regurgitation, 340 in tricuspid valve disease, 401

Cerebral infarction, carotid artery evaluation following, 429–430

Cerebrovascular disease, extracranial, 523–534 as cause of stroke, 523

Chest pain, abnormal visceral nociception in, 163–164 cardiac cause, 159–162

gastrointestinal cause. 159

in patients with normal coronary angiograms, management, 164-165

psychiatric cause, 158-159

in pulmonary embolism, treatment, 469

sensitivity testing, 163

Chilblain, and arterial insufficiency ulcers, 561-562

Children, left ventricular outflow tract obstruction in, 381–396

Cholesterol crystals, and atherosclerotic disease, 525, 526 Chronic obstructive airway disease, in stable angina pectoris, treatment, 84 Chronic venous insufficiency, as cause of leg swelling, 444 445

Circadian rhythm, in stable angina pectoris, 8-9

Circulatory assist devices, for shock in myocardial infarction, 581–582

Cirrhosis, hepatic, as cause of leg swelling, 443

Claudication, of the foot, in peripheral vascular disease, 415–416

intermittent, in peripheral vascular disease, 414 of left lower leg, 520 of thighs, 518

venous, in peripheral vascular disease, 415

Coagulation, blood, activation of, and venous thromboembolism, 457

Commissurotomy, surgical, previous, effect on percutaneous mitral balloon valvotomy, 281

Computed tomography (CT), in abdominal aortic aneurysms, 484

in lymphedema, 455-456

Coronary artery, blood flow, mechanisms involving, 2–6 injury to, diagnosis and treatment, 681–682

Coronary artery bypass, for angina pectoris, 135–155. See also entries under Angina pectoris.

for angina pectoris in the elderly, 183

Coronary artery disease, angiographic assessment, 63–64 and aortic valve dysfunction, 301–307

atherectomy in, 115-122 clinical spectrum, 11

effect on valvular heart surgery, 301-314

endovascular prostheses in, 122

as factor in long-term results of a ortic valve replacement, 367–368

hypertension in, medical therapy, 167-176

laser treatment, 124-130

mitral valve dysfunction and, 307

and mortality following aortic valve replacement, 364 myocardial ischemia in, pathophysiology, 11-12

silent, preoperative evaluation, 475-476

sudden death in, 655-656

prevention, 660 Wall stent in, 122–124

Coronary artery obstruction, in unstable angina pectoris, 16–21

Coronary artery stenoses, atherosclerotic. See Coronary atherosclerosis.

hemodynamic effects, 2-3

morphology, classification, 66-69

features, 15

vasomotor tone and dynamics of, 3-5

Coronary atherosclerosis, 12-13

Coronary thrombosis, as cause of episodic coronary artery obstruction in unstable angina pectoris, 20–21

Coronary vascular response, abnormal, causes, 162

Coronary vasomotion, as cause of episodic coronary artery obstruction in unstable angina pectoris, 16–19

Corticosteroids, in temporal arteritis, 552

Cramps, in peripheral vascular disease, 414-415

Cross-leg test, for popliteal pulsation, 422, 423

CT. See Computed tomography.

Cysts, Baker's, ruptured, as cause of leg swelling, 452–453

Death, sudden, 653-664

in cardiac arrest survivors, 654–655

cardiomyopathy and, hypertrophic, 656–657 idiopathic dilated, 657

catheter ablation techniques in, 659-660 coronary artery disease and, 655-656

ECG correlates of, 653 high-risk patients for, 653-654 Holter monitoring in, 654 long QT syndrome and, 658 mitral valve prolapse and, 657 prevention, 660-661 right ventricular dysplasia and, 657-658 signal-averaged ECG in, 654 treatment, 658-660

Defibrillators, implantable cardioverter, in sudden death, 658-659

Degenerative diseases, 696-700 affecting the aortic valve, 696-698

Depolarization, atrial versus ventricular, in ventricular tachycardia, 604-606

Diabetes mellitus, in stable angina pectoris, treatment, 84

Digoxin, in atrial fibrillation, 637 toxicity, and atrial arrhythmias, 627

Diltiazem, for stable angina pectoris, 83 Dipyridamole-thallium imaging, in preoperative evaluation in coronary artery disease, 478

Dissection, definition, 528

Diuretics, for hypertensive patients with angina pectoris,

Dobutamine, for shock in myocardial infarction, 577-579 Dopamine, for shock in myocardial infarction, 577

Doppler echocardiography, in acute aortic regurgitation,

in acute mitral regurgitation, 721-722

in acute myocardial infarction, 712-714, 722-726

in aortic dissection, 712 basic principles, 193-195 in cardiac rupture, 722

in cardiac tamponade, 669-671, 715-718

in carotid artery evaluation, 431-433 color flow, 194-195, 196, 209, 221 in carotid artery evaluation, 433

continuous wave, 194, 206

in carotid artery evaluation, 431-432, 434 in critically ill cardiac patients, 711-732

limitations of, 728-729 in deep venous thrombosis, 437

in endocarditis, 692

in hemodynamically compromised patients, 714-722 in hypotension, 714-718

in hypotension and pulmonary edema, 719-722

instrumentation, 193-195 modalities of, 193-195

in prosthetic valve regurgitation, 217-222

in pulmonary edema, 718-719

pulsed, in carotid artery evaluation, 432-433 pulsed wave, 193-194, 195, 210, 215, 216

in carotid artery evaluation, 434-435 sensitivity and specificity of, 199-201

Swan-Ganz catheterization versus, in acutely ill cardiac patients, 726-728

transesophageal, of the thoracic aorta, 712

in valvular regurgitation, 193-407

limitations, 222-223 of normal subjects, 195-199

in ventricular septal defect, 721

Dorsalis pedis artery, examination of, 422-424

Drug abuse, endocarditis in, 691

Drugs, in angioplasty of the superficial femoral artery, 516 as cause of leg swelling, 447

in chronic aortic insufficiency, 262-268

for hypertensive patients with angina pectoris, 167-176 in stable angina pectoris, 74-85

in sudden death, 658

vasodilator, for acute aortic insufficiency, 261

Dual isotope imaging, 749-751

Duplex scanning, in deep venous thrombosis, 438-439

Dysplasia, fibromuscular, 529-530

right ventricular, and sudden death, 657-658 sudden death in, prevention, 660-661 in ventricular tachycardia, 601

ECG. See Electrocardiography.

Echocardiography, in acute aortic regurgitation, 340

in cardiac tamponade, 669-671

in critically ill cardiac patients, 711-732 limitations of, 728-729

Doppler. See Doppler echocardiography. in endocarditis, 692

in hemodynamically compromised patients, 714-722

intraoperative, in children, 393-394

Swan-Ganz catheterization versus, in acutely ill cardiac patients, 726-728

transesophageal, of aortic dissection, 698 versus transthoracic, in endocarditis, 692

in tricuspid valve disease, 401

two-dimensional, following aortic valvuloplasty, 296

Edema, pulmonary. See Pulmonary edema.

Elderly, angina pectoris in, 177-187 aortic stenosis in, 235-236

peripheral vascular disease in, issue on, 413-563

pulmonary embolism in, 457-474

renovascular hypertension in, 543-545

vascular skin lesions of the extremities in, 555-563 Electric countershock, in sudden death, 658-659

Electric injury, and heart failure, diagnosis and treatment, 685

Electrocardiography (ECG), ambulatory, in detection of asymptomatic myocardial ischemia, 51-52

in AV nodal reentry, 619-622

exercise, in detection of asymptomatic myocardial ischemia, 50

signal-averaged, in sudden death--high-risk patients,

in syncope, 644, 649-650

in sudden death victims, 653

in tricuspid valve disease, 401, 402

in wide QRS complex tachycardias, 603, 604, 607-608

Embolism, arterial, cardiac sources of, 498

as cause of acute peripheral arterial occlusion, 497-500

sites, 500

treatment, 506

results, 509-510

pulmonary. See Pulmonary embolism.

recurrent, treatment, results, 510

systemic, in mitral stenosis, 231-232

thrombosis versus, 503-505

Endocarditis, 689-694

bacteriology, 690

clinical diagnosis, 691

Doppler echocardiography in, 692

in drug abusers, 691

infective, and acute aortic regurgitation, 339-340

in chronic aortic insufficiency, 262

as factor in long-term results of aortic valve replacement, 371

surgical management, 404-406

indications, 341-342

results, 346-349

and tricuspid valve insufficiency, 398-399

laboratory diagnosis, 691-692

pathogenesis, 689-690

Endocarditis (Continued) physical examination, 691 prosthetic valve, 690-691 treatment, 692-694

Exercise testing, in preoperative evaluation in coronary artery disease, 477-478

Lahev clinic experience, 479

in risk stratification of angina pectoris patients, 40-44 Extremities, lower, ischemia of, diagnostic findings, 426 pulsatile masses in, 423-424 vascular skin ulcers of, in the elderly, 555-563

Facial artery, examination of, 418 Femoral artery, aneurysms of, 489-492 arteriosclerotic, 489-491 examination of, 421, 422, 423 percutaneous catheterization of, vascular complications, pseudoaneurysms of, 491 Femoropopliteal arteries, percutaneous transluminal angioplasty in, 519 Fibrinolytic agents, in pulmonary embolism, 767-769 Fibromuscular dysplasia, 529-530

Fibrosis, retroperitoneal, as cause of leg swelling, 452 Fistula, arteriovenous, as cause of leg swelling, 448, 450

in peripheral vascular disease, 424 AV, diagnosis and treatment, 684-685

Foot, claudication of, in peripheral vascular disease, 415-

Foreign bodies, retained, and heart failure, diagnosis and treatment, 685-686

Free-wall rupture, following acute myocardial infarction,

Gated blood pool (MUGA) scanning, in detection of asymptomatic myocardial ischemia, 50-51 Gianturco stent, in coronary artery disease, 123-124 Glycosides, for shock in myocardial infarction, 577 Great vessels, trauma to, diagnosis and treatment, 683-685

Heart, preoperative evaluation, in coronary artery disease, 476-479

Heart block, and syncope, 641 treatment, 647

Heart disease, traumatic, classification, 676

diagnosis, 677-683

evaluation and treatment, 677-683 immediate, 676-677

treatment, immediate, 676-677

internist's role in, 675-688

valvular. See Valvular heart disease. Heart failure, contractile dysfunction and, 570-571 electric injuries and, diagnosis and treatment, 685 and myocardial rupture, 680-681

Heart valve prostheses, 329-338

Bjork-Shiley valve, 330-331

Ionescu-Shiley pericardial bioprosthesis, 333 mechanical, 330-332, 334-335, 355-356

versus tissue, comparative studies, 333-335 Medtronic-Hall prosthesis, 331, 332

selection of, 335-336 St. Jude Medical valve, 331

Starr-Edwards valve, 330

tissue, 332-333, 335

Hemangioma, cavernous, of thigh and hip, 450

Hemihypertrophy, 453, 454

Hemodynamic instability, initial management, 727

Heparin, in acute peripheral arterial occlusion, 508 in angioplasty of the superficial femoral artery, 516 in pulmonary embolism, 465-470

Hip, fracture of, venous thrombosis following, 466 replacement, pulmonary embolism following, 465-466

Holter monitoring, in detection of asymptomatic

myocardial ischemia, 51 in sudden death--high-risk patients, 654

in syncope, 643-644

Hydralazine, for chronic aortic insufficiency, 262-268

Hypersensitivity, carotid sinus, and syncope, 641-642 treatment, 647

Hypertension, angina pectoris and, medical therapy, 167-176

renovascular, in the elderly, 543-545 management, 543-545 risks, 543

in stable angina pectoris, treatment, 84

Hypertensive ischemic ulcer, 560 Hypotension, in acutely ill cardiac patients, causes, 714

Doppler echocardiography in, 714-718

orthostatic, and syncope, 642

treatment, 647

pulmonary edema and, Doppler echocardiography in, 719-722

in pulmonary embolism, treatment, 469 Hypovolemia, in acute myocardial infarction, 589 Hypoxemia, in venous thromboembolism, treatment, 469

Iatrogenic injury, 704-705

and heart failure, diagnosis and treatment, 685 Iliac artery, stenosis of, percutaneous transluminal angioplasty in, 517-518

Imaging, thallium-201, in risk stratification of angina pectoris patients, 44-45

Implantable cardioverter defibrillator (ICD) automatic, in sudden death, 658-659

in wide ORS complex tachycardias, 611-612 Impotence, in peripheral vascular disease, 415

Infants, aortic stenosis in, surgical approach, 392-393 valvular obstruction in, 382-384

Infections, of aortic root, surgery for, 341-343 as cause of leg swelling, 446

Inflammatory diseases, 701

Infrapopliteal arteries, percutaneous transluminal angioplasty in, 519

Ionescu-Shiley pericardial bioprosthesis, 333

Ischemia, acute, neurologic manifestations of, versus neurologic disorders, 505

acute visceral, 535-537

cellular and mechanical events during, 6-7

chronic intestinal, 539-540 mesenteric, nonocclusive, 538-539

myocardial, acute, pathogenesis, 12

asymptomatic, in angina pectoris, incidence, 52-53 pathophysiologic considerations, 53-55 pathophysiology and clinical implications, 49-61 prognostic implications, 55-57

detection, 50-52

impact of therapy on, 57-58

in coronary artery disease, pathophysiology, 11-12 silent, in hypertensive patients with angina pectoris,

in peripheral vascular disease, 424-425

severe, as cause of leg swelling, 446 and stable angina pectoris, 7–8 transient, effects, 49–50 Ischemic valvular disease, 694–696 Isosorbide dinitrate, for stable angina pe

Isosorbide dinitrate, for stable angina pectoris, 75, 77 Isosorbide–5-mononitrate, for stable angina pectoris, 75

Kidney, disease of, in stable angina pectoris, treatment, 84–85 dysfunction of, as factor in long-term results of aortic

valve replacement, 36ô Klippel-Trenaunay-Weber syndrome, 448, 451

Lasers, in coronary artery disease, 124–130 delivery systems, 127

tissue effects, 125–127 Left-to-right shunt, following percutaneous mitral balloon valvotomy, 282

Left ventricular dysfunction, aortic insufficiency and, 255– 257

aortic valve replacement in, 234-235

as factor in long-term results of a ortic valve replacement, 369-371

and mortality following aortic valve replacement, 364–365

Left ventricular function, aortic valve replacement and, long-term effects, 371–375

effects of aortic valvuloplasty on, 292 effects of mitral valve surgery on, 322-324

reperfusion therapy for, 742–743

Left ventricular hypertrophy, in hypertensive patients with angina pectoris, 172–173

Left ventricular outflow tract obstruction, in children, 381–396

new approaches, 392–394 postoperative follow-up, 394–395 subvalvular, 385–387

subvalvular, 385–381 subvalvular stenosis, 391–392

supravalvular stenosis, 387–390, 392 valvular, 381–385, 390–391

Leg, lower, claudication of, 520

pain in, causes, 435–436 swollen, 443–456

causes, 443-453, 455

diagnostic tests for, 455-456

patient history, 453, 455

physical examination for, 455

ulcers of, causes, 556 veins of, anatomy, 555

Leriche syndrome, in peripheral vascular disease, 415

Lidocaine, in atrial fibrillation, 637 in ventricular tachycardia, 610

in wide QRS complex tachycardias, 609

Lipedema, as cause of leg swelling, 448, 449

Lipids, abnormal, in stable angina pectoris, treatment, 85 Livedo reticularis, 561

conditions associated with, 560

Lumen, occlusion of, 524

Lung scan, ventilation-perfusion, in venous thromboembolism, 460

Lungs, preoperative evaluation, in coronary artery disease, 479

Lymphedema, causes, 445–446 CT in, 455–456 Magnesium sulfate, in wide QRS complex tachycardias, 609

Medtronic-Hall prosthesis, 331, 332

Mesenteric arteries, occlusion of, 535–541 superior, embolic occlusion of, 536–537

thrombosis of, 537–539 Mesenteric artery occlusive disease, **535–541** 

Mitral bioprosthesis valvuloplasty, 284 Mitral regurgitation, 245–249

acute, Doppler echocardiography in, 721–722

following acute myocardial infarction, 583-585 quantitation of, Doppler echocardiography for, 206

for chronic aortic insufficiency, 278–279 Doppler echocardiography in, 197, 198

sensitivity and specificity of, 199 following percutaneous mitral balloon valvots

following percutaneous mitral balloon valvotomy, 282 ischemic, 694-696

anatomy, 694

clinical diagnosis, 694-695

treatment, 695-696

quantitation of, Doppler echocardiography for, 201–206 surgical correction, indications, 248–249

valve repair versus valve replacement in, 315–327 historical perspective, 315

left ventricular systolic function following, 322–324 mortality and long-term survival following, 315–322

Mitral stenosis, 229-233 assessment, 232-233

cardiac mechanics in, 229-230

pathophysiology, 229-230

survival in, determinants of, 230-231

systemic embolism in, for surgery, 231–232 Mitral valve, abnormalities of, classification, 307–308

calcification of, following percutaneous mitral balloon valvotomy, 280

infectious disease involvement in, 701

Mitral valve disease, degenerative, 698-700

Mitral valve dysfunction, and coronary artery disease, 307

Mitral valve prolapse, complications, 699 sudden death in, 657

prevention, 660

treatment, surgical, 699-700

Mitral valve repair, for chronic mitral regurgitation, clinical and functional effects, 245–248 mitral valve replacement versus, 315–327

Mitral valve replacement, combined with bypass grafting, 308–313

mitral valve repair versus, 315-327

Monsidomine, for stable angina pectoris, 85

Myocardial contusion, diagnosis and treatment, 679

frequency of, 679

Myocardial infarction, acute, aneurysm following, ventricular, 588–589

clinical and hemodynamic subsets, 572-573

complicated, 569-593

complications, 583-589, 741-742

nonarrhythmic, 720

contractile dysfunction in, 570-571

diastolic dysfunction in, 571-572

Doppler echocardiography in, 712-714, 722-726

features, 572

free-wall rupture following, 586-587

hypovolemia in, 589

imaging methods, 749-751

infarct expansion following, 588

mitral regurgitation following, 583-585 pathophysiology, 569

PCWP in, 574-575

pseudoaneurysm following, 587-588

pulmonary congestion in, 573

Myocardial infarction (Continued) pulmonary edema in, 574-575 pump failure in, 569-572 clinical and therapeutic categories, 573-583 reperfusion in, 582-583 treatment, 578 right ventricular infarction in, 589-590 risk stratification in, exercise testing, 43-44 shock in, 575-583 vasodilators for, 579-580 ventricular septal rupture following, 585-586 and peripheral arterial embolism, 498 shock in, circulatory assist devices for, 581-582 dobutamine for, 577-579 dopamine for, 577 glycosides for, 577 intra-aortic balloon pump for, 581 nitroglycerin for, 580 nitroprusside for, 580 norepinephrine for, 579 phentolamine for, 580 sympathomimetic agents for, 577-579 ventricular tachycardia following, 599-600 Myocardial laceration, diagnosis and treatment, 677-678 Myocardial oxygen demand, mechanisms involving, in stable angina pectoris, 6 Myocardial reperfusion, thallium-201 imaging in, 743-744 Myocardial rupture, cardial failure and, 680-681 Myocardial salvage, thallium-201 imaging for, 747 Myxedema, pretibial, 451, 452 Myxoma, atrial, as cause of peripheral arterial embolism, 499

Nicardipine, for stable angina pectoris, 83 Nicorandil, for stable angina pectoris, 85 Nifedipine, for chronic aortic insufficiency, 267 for stable angina pectoris, 83 Nitrates, for angina pectoris in the elderly, 182 for hypertensive patients with angina pectoris, 169 long-acting, for stable angina pectoris, 75 short-acting, for stable angina pectoris, 75 for stable angina pectoris, adverse effects, 78-79 limitations, 74-75 mechanism of action, 74 for unstable angina pectoris, 90-91 Nitroglycerin, for shock in myocardial infarction, 580 for unstable angina pectoris, 90-91 Nitroglycerin patches, for stable angina pectoris, 76, 78 Nitroprusside, for acute aortic insufficiency, 261-262 for shock in myocardial infarction, 580

Neck, bruits in, carotid artery evaluation in patients with,

Obese patients, popliteal artery examination in, 422, 423 Occipital artery, examination of, 418 Oculoplethysmography, in carotid artery evaluation, 431

Norepinephrine, for shock in myocardial infarction, 579

Nuclear imaging, in acute cardiac care, 733-759

Pain, in acute arterial insufficiency, 503 chest. See Chest pain.

Nociception, visceral, abnormal, 163-164

clinical applications, 737-742

technical principles of, 733-737

in pulmonary embolism, treatment, 469 leg, causes, determination of, 435-436 perception of, personality-related, in angina pectoris patients, 7 in peripheral vascular disease, 414 at rest, ischemic, in peripheral vascular disease, 416 Pallor, in acute arterial insufficiency, 503 Palmaz-Schatz stent, in coronary artery disease, 123-124 Papillary muscle, dysfunction of, following acute myocardial infarction, 583-584 rupture of, following acute myocardial infarction, 584-PCWP. See Pulmonary capillary wedge pressure. Pentaerythritol tetranitrate, for stable angina pectoris, 75 Percutaneous coronary angioplasty in angina pectoris, 99-113 future developments, 111 high-risk patients, 104-106 indications, 105 limitations, 106-108 long-term outcome following, 108-111 patient selection, 104 predictors of success and complications, 103-104 restenosis following, 106-108 current status, 99-103 Percutaneous mitral balloon valvotomy, 271-287 arrhythmias following, 282 complications, 281-282 follow-up, 282-283 mechanism, 274-275 mitral regurgitation following, 282 mortality in, 281 outcome, 275-281 age as factor in, 280-281 in atrial fibrillation, 278 balloon size as factor in, 279-280 determinants of, 276 echocardiographic score of mitral valve in, 276-278 in mitral regurgitation, 278-279 mitral valve calcification and, 280 previous surgical mitral commissurotomy and, 281 patient selection, 283-284 during pregnancy, 284 technique, 271-274 thromboembolism following, 281 Percutaneous transluminal coronary angioplasty (PTCA) for angina pectoris in the elderly, 183-184 for stable angina pectoris, 35 Pericardial tamponade, diagnosis and treatment, 678-679 following percutaneous mitral balloon valvotomy, 281 Pericardiocentesis, in cardiac tamponade, 672 Pericardiotomy, subxiphoid, in cardiac tamponade, 673 Pericarditis, subacute effusive-constrictive, in cardiac tamponade, 672 Peripheral arterial occlusion, acute, causes, 497-502 clinical manifestations, 503 differential diagnosis, 503-505 pathophysiology, 502-503

of, 515-522. See also Angioplasty, percutaneous transluminal. pulsations in, in peripheral vascular disease, 417-423 Peripheral vascular disease, angiography in, 426-427

Peripheral arteries, percutaneous transluminal angioplasty

atherosclerosis in, 413 bedside evaluation, 426 in the elderly, issue on, 413-563

history taking in, 414

ischemia in, 424-425

treatment, 505-509

results, 509-511

limb blood pressure and flow in, 425-426

noninvasive assessment, 433-435

physical examination, 417-426

physiologic testing, 426

preoperative evaluation, 475-481

cardiac status, 476-479

pulmonary status, 479 and shortened life span, 413

signs and symptoms, 414-417

in stable angina pectoris, treatment, 84

Peripheral vasculature, clinical evaluation, 413-427

Pernio, chronic, and arterial insufficiency ulcers, 561-562

Phentolamine, for shock in myocardial infarction, 580

Phlegmasia cerulea dolens, 444, 505

Plaque fissure, mechanisms, 13-16

Platelet aggregation, as cause of episodic coronary artery obstruction in unstable angina pectoris, 19-20

mechanisms, 21-22

Plethysmography, impedance, in deep venous thrombosis, 437-438

Popliteal artery, aneurysms of, 492-495

clinical presentation, 492-493

diagnosis, 493-494

epidemiology, 492

natural history, 494

treatment, 494-495

Porcine heterograft tissue valves, 332-333

Positron emission computed tomography (PET)

clinical applications, 740-741

technical principles of, 736-737 Prednisone, in temporal arteritis, 552

Preexcitation, mechanism of, 622

Preexcitation syndromes, 622-624

tachycardias associated with, 623

Pregnancy, percutaneous mitral balloon valvotomy in, 284

Proarrhythmia, detection of, 602

ventricular, manifestations, 601-602

Procainamide, in ventricular tachycardia, 610

in wide QRS complex tachycardias, 609 Prosthesis, endovascular, in coronary artery disease, 122

heart valve, 329-338. See also Heart valve prostheses. Prosthetic valve regurgitation, Doppler evaluation of, 217 - 222

Prosthetic valve replacement, for tricuspid insufficiency,

Prosthetic valves, dysfunction of, 702-704

Pseudoaneurysm, aneurysm versus, 587

features, 587

femoral artery, 491

following acute myocardial infarction, 587-588

Pseudoclaudication, neurogenic, in peripheral vascular disease, 415

Pseudophlebitis, 452-453

Pulmonary capillary wedge pressure (PCWP), in acute myocardial infarction, 574-575

Pulmonary circulation, imaging of, 763

Pulmonary congestion, in acute myocardial infarction, 573 shock in, 575

Pulmonary edema, acute, in acute myocardial infarction, 574-575

postinfarction, treatment, 575

in acutely ill cardiac patients, cause, 717

Doppler echocardiography in, 718-719

hypotension and, Doppler echocardiography in, 719-

Pulmonary embolism, 761-772

anticoagulation in, 765-767

clinical features, 761-762

complications, treatment, 469

diagnosis, 440, 761-765

diagnostic algorithm for, 771

in the elderly, 457-474

clinical manifestations, 459-460

diagnosis, 459-463

prevention, 463-466

treatment, 466-471

fibrinolytic agents in, 767-769

following hip replacement, 465

laboratory findings, 762

lower extremity venous imaging, 762-763

prevention, 769-771

pulmonary angiography in, 764

suspected, venous thrombosis in, tests for, 460-461

treatment, 765-771

vena cava interruption in, 767

ventilation perfusion scans in, 763-764

Pulmonary valve autografts, 358-359

Pulmonic regurgitation, Doppler echocardiography in, 198-199

sensitivity and specificity of, 201

quantitation of, Doppler echocardiography for, 217

Pulsus paradoxus, in cardiac tamponade, 667-669

mechanism of, 667-669

QT syndrome, long, sudden death in, 658 prevention, 661

Radial artery, examination of, 419, 420

Radiation, laser, in coronary artery disease, 125-127

Radiography, chest, in tricuspid valve disease, 401

Radionuclide angiography, in risk stratification of angina pectoris patients, 45-46

Radionuclide scanning, in preoperative evaluation in coronary artery disease, 478

Radionuclide ventriculography, in preoperative evaluation in coronary artery disease, 478-479

Reentry, AV nodal, atypical, 621

electrophysiologic mechanisms of, 619-622

supraventricular secondary to, 621

typical, 620

in ventricular tachycardia, 596-597

Regurgitation. See also specific types, e.g., Mitral regurgitation.

mitral. See Mitral regurgitation. acute, following acute myocardial infarction, 583-585

tricuspid. See Tricuspid regurgitation.

valvular, evaluation of, Doppler echocardiography for, 193-407

Reperfusion, myocardial, thallium-201 imaging in, 743-744

in pump failure, 582-583

sestamibi in, 747-748

Reperfusion therapy, efficacy, 742-744

in left ventricular function, 742-743

limitations of conventional endpoints of, 744-747

Rest pain, ischemic, in peripheral vascular disease, 416 Revascularization, myocardial, preoperative, in coronary

artery disease, 476 Rheumatic fever, and acute aortic regurgitation, 346

and mitral stenosis, 229 and tricuspid valve insufficiency, 398

Right ventricular infarction, in acute myocardial

infarction, 589-590 and tricuspid valve insufficiency, 399-400

Risk stratification, in unstable angina pectoris, 95-96. See also Angina pectoris, risk stratification in.

Roentgenography, in popliteal artery aneurysms, 493 Rotablator, in coronary artery disease, 121-122

Scanning, duplex, in deep venous thrombosis, 438-439 triplex, in deep venous thrombosis, 438-439 Sciatica, in peripheral vascular disease, 415 Scintigraphy, infarct-avid, clinical applications, 738-739 technical principles of, 734 myocardial perfusion, technical principles of, 735-736 thallium, exercise, in detection of asymptomatic myo-

cardial ischemia, 50 Sestamibi, in reperfusion, 747-748 technical principles of, 733-734, 736

in unstable angina pectoris, 752

Shock, definition, 575 in myocardial infarction, 575-583 in pulmonary congestion, 575

ventriculopenic, in acute myocardial infarction, 575-577 without pulmonary congestion, 589-590

without pulmonary edema, 589-590

Simpson AtheroCath, in coronary artery disease, 115-120 Sinus node disease, and syncope, 641

St. Jude Medical valve, 331

Starr-Edwards silastic ball prosthesis, 330

Streptokinase, in acute peripheral arterial occlusion, 508-

Stress, mental, effect on ischemic episodes in angina pectoris patients, 7-8

Stress-thallium imaging, in preoperative evaluation in coronary artery disease, 477

Stroke, extracranial cerebral diseases and, 523

following TIAs, 429

hemispheric TIAs and, 526-527

ocular TIAs and, 524-526

prevention, diagnostic evaluation in, 429-431

vertebrobasilar, treatment, 531-532

Subclavian steal syndrome, 531

Subclavian vein, thrombosis of, 440

Subvalvular stenosis, in children, postoperative follow-up, 394

Subvalvular tunnel stenosis, in children, surgical approach, 393

Supravalvular stenosis, in children, 387-390, 392 postoperative follow-up, 394-395

with valvular stenosis or insufficiency, in children, surgical approach, 393

Swan-Ganz catheterization, Doppler echocardiography versus, in acutely ill cardiac patients, 726-728 Sympathomimetic agents, for shock in myocardial

infarction, 577-579

Syncope, 641-651 cardiac electrophysiologic study in, 644-645 carotid sinus hypersensitivity and, 641-642

causes, 641-642 frequency of, 643

diagnosis, 642-647 drug-induced, 642

heart block and, 641

holter monitoring in, 643-644

incidence, 641

neurally mediated, treatment, 647

neurologic causes, 642

orthostatic hypotension and, 642

signal-averaged ECG in, 644

sinus node disease and, 641

situational, 642

supraventricular tachycardia and, 641

tilt table studies in, 645-647

treatment, 647 vasovagal, 642

treatment, 647

ventricular tachycardia and, 641

Tachycardia, antidromic, 623

atrial, automatic and reentrant, and digoxin toxicity, 627

diagnosis and treatment, 679-680 digoxin toxicity and, 627

multifocal, 627

primary, 627

treatment, 637

narrow complex, 619-640

adenosine in, 631, 633-634 cardioversion in, 632

differential diagnosis, 628-632

treatment, 632-638

vagal maneuvers in, 632-633

in preexcitation syndromes, 623

preexcited, 598-599

sinus node reentrant, 628

supraventricular, 619-640

with aberrant conduction, 598

adenosine in, 633-634

arrhythmic circuit site in, 620 cardioversion in, 632

differential diagnosis, 628-632

orthodresmic, 623, 624, 626

paroxysmal, electrophysiologic study in, 635

treatment, 634-637 and syncope, 641 treatment, 632-638

vagal maneuvers in, 632-633

ventricular, 595-598

after myocardial infarction, 599-600 antiarrhythmic agents in, 610

capture and fusion beats in, 603-604

in cardiomyopathy, 600-601

clinical, 597-598

definition, 595

increased automaticity in, 597

management, 608-613

mechanisms of, 596-598

in patients with structurally normal hearts, 602-603

reentry in, 596-597 and syncope, 641

syndromes of, 599-602

treatment, 647

triggered activity in, 597

wide complex, 595-618

ablative therapy, 612-613

capture and fusion beats in, 603-604

causes, 595

device therapy in, 611-612

differential diagnosis, 596, 603-608 ECG findings, 603, 604, 607-608

implantable cardioverter defibrillators in, 611-612

left bundle branch pattern in, 607

management, 608-613

QRS axis in, 606

QRS duration in, 606 QRS morphology in, 606

right bundle branch pattern in, 606-607

Takayasu's aortitis, temporal arteritis versus,

distinguishing features, 549

Technetium-99m pyrophosphate, clinical applications, 738

technical principles of, 734

Temporal artery, biopsy of, in temporal arteritis, 550-552

examination of, 418

Thallium-201 imaging, clinical applications, 739-740

in myocardial reperfusion, 735-736, 743-744

for myocardial salvage, 747

in risk stratification of angina pectoris patients, 44-45 in unstable angina pectoris, 751-752

Thighs, claudication of, 518

Thoracoabdominal injury, murmur following, diagnosis and treatment, 682-683

Thromboangitis obliterans, and arterial insufficiency ulcers, 559-560

Thromboembolism, following percutaneous mitral balloon valvotomy, 281

mechanical prostheses and, 334-335

tissue valves and, 335

venous, pathogenesis, 458

recurrent, management, 471

risk factors, 464

in the elderly, 457-458

tests for, 460-461

Thrombolytic agents, in acute peripheral arterial occlusion, 508-509

in pulmonary embolism, 468-469

Thrombophlebitis, as cause of leg swelling, 443-444

Thrombosis, acute arterial, as cause of acute peripheral arterial occlusion, 500-502

causes, 500-502

treatment, 506-508

results, 510-511

acute mesenteric artery, 537-539

coronary, as cause of episodic coronary artery obstruction in unstable angina pectoris, 20-21

embolism versus, 503-505

mechanisms, 21-22

of subclavian vein, 440

venous, as cause of leg swelling, 443-444

diagnosis, 439

following fracture of the hip, 466

noninvasive evaluation, 436-439

recurrent, 439

screening of high-risk patients with, 439-440

in suspected pulmonary embolism, tests for, 460-461 treatment, 440, 466-471

TIAs. See Transient ischemic attacks.

Transesophageal imaging, of prosthetic valves, 222

Transient ischemic attacks (TIAs), in carotid arteries, 429 hemispheric, and stroke, 526-527

ocular, and stroke, 524-526

stroke following, 429

treatment, 531-532

vertebrobasilar, clinical manifestations, 530-531

Transluminal extraction catheter, in coronary artery disease, 120-121

Trauma, and acute aortic regurgitation, 340

surgery for, 345-346

results, 350

blunt, and aortic disruption, 700

penetrating, 700-701

and tricuspid valve insufficiency, 399

Tricuspid regurgitation, Doppler echocardiography in, 198 sensitivity and specificity of, 200-201

ischemic, 696

quantitation of, Doppler echocardiography for, 215-217

Tricuspid stenosis, surgical management, 403

Tricuspid valve, anatomy and function, 397 functional insufficiency of, 397-398

infectious disease involvement in, 701

organic insufficiency of, 398-400

pathology, 397

prolapse of, and tricuspid valve insufficiency, 399

stenosis of, 400

Tricuspid valve disease, diagnosis, 400-401

evaluation and management, 397-407 treatment, medical, 401-402

surgical, 402-406

Tricuspid valvuloplasty, technique, 405

Triggered activity, in ventricular tachycardia, 597

Triplex scanning, in deep venous thrombosis, 438-439

Tumors, as cause of leg swelling, 448, 449 pulsatile, in the extremities, 423-424

and tricuspid valve insufficiency, 400

Tunnel subaortic stenosis, 391-392

Ulcers, hypertensive, and arterial insufficiency ulcers, 560-561

hypertensive ischemic, 560

ischemic, characteristics, 416

in peripheral vascular disease, 416-417

leg, causes, determination of, 435-436 neurotrophic, in peripheral vascular disease, 417

systemic-related, in peripheral vascular disease, 417

vascular skin, of the extremities, in the elderly, 555-563

Ulnar artery, examination of, 419, 420

in popliteal artery aneurysms, 493-494

obstruction of, in peripheral vascular disease, 420, 421

Ultrasonic imaging, in carotid artery evaluation, 435 Ultrasonography, Doppler, in deep venous thrombosis,

Valvotomy, percutaneous mitral balloon, 271-287. See also Percutaneous mitral balloon valvotomy.

Valvular emergencies, 689-709

causes, 689, 690

prosthetic, 702-704

Valvular heart disease, "ideal" operation for, 354-355

issue on, 193-407

Valvular injury, diagnosis and treatment, 682-683 Valvular obstruction, postoperative follow-up, 394

Valvular regurgitation, Doppler echocardiography in, 193-

228

limitations, 222-223

quantitation of, Doppler echocardiography for, 201-217

Valvuloplasty, aortic, 289-299. See also Aortic valvuloplasty.

balloon, iatrogenic damage caused by, 704-705 tricuspid, technique, 405

Vasodilators, for acute aortic insufficiency, 261 for chronic aortic insufficiency, 262-268

for hypertensive patients with angina pectoris, 168

for pump failure following myocardial infarction, 578

for shock in myocardial infarction, 579-580

Vasospasm, and arterial insufficiency ulcers, 561

Vena cava interruption, in pulmonary embolism, 767 Venous insufficiency, chronic, clinical features, 556-557 treatment, 557-559

and ulcers of the extremities, in the elderly, 555-563 pathogenesis, 555-556

Venous system, noninvasive evaluation, 436-439

Ventilation-perfusion lung scanning

in pulmonary embolism, 763-764

in venous thromboembolism, 460

Ventricular outflow tract obstruction, left. See Left ventricular outflow tract obstruction.

Ventricular septal rupture, diagnosis and treatment, 683 Doppler echocardiography in, 721

Ventricular septal rupture (Continued) following acute myocardial infarction, 585–586
Ventriculography, radionuclide, in preoperative evaluation in coronary artery disease, 478–479 technical principles of, 733
Verapamil, in primary atrial arrhythmias, 637 in stable angina pectoris, 83
Vertebral arteries, extracranial, 530–531

Vertebral dissection, 531 Volume overload, compensated versus decompensated, 239–240

Wall stent, in coronary artery disease, 122-124 Wolff-Parkinson-White syndrome, atrial fibrillation in, 609

